



IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Ivan J. Baiges

Confirmation No.: 2301

Application No.: 10/057,619

Examiner: Blaise L. Mouttet

Filing Date: Jan. 24, 2002

Group Art Unit: 2853

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND  
METHOD OF PERFORMING A PRINTING OPERATION

Mail Stop Appeal Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on August 5, 2004.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$340.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

( ) one month	\$110.00
( ) two months	\$430.00
( ) three months	\$980.00
( ) four months	\$1530.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$340.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

(X) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450. Date of Deposit: Oct. 1, 2004

OR

( ) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_

Number of pages:

Typed Name: Scott A. Lund

Signature: [Signature]

Respectfully submitted,

Ivan J. Baiges

By [Signature]

Scott A. Lund

Attorney/Agent for Applicant(s)

Reg. No. 41,166

Date: Oct. 1, 2004

Telephone No.: (612) 573-2006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Ivan J. Baiges

Examiner: Blaise L. Mouttet

Serial No.: 10/057,619

Art Unit: 2853

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET  
PRINTHEADS AND METHOD OF PERFORMING A PRINTING  
OPERATION



**APPEAL BRIEF TO THE BOARD OF  
PATENT APPEALS AND INTERFERENCES OF THE  
UNITED STATES PATENT AND TRADEMARK OFFICE**

**Mail Stop Appeal Brief-Patents**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir/Madam:

**APPELLANT'S BRIEF ON APPEAL**

This Appeal Brief is presented in support of the Notice of Appeal filed on August 5, 2004, from the Final Office Action mailed April 7, 2004, rejecting claims 1-19 and 21-44 of the above-identified application.

This Appeal Brief is filed in triplicate. The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. **08-2025** in the amount of **\$340.00** for Filing a Brief in Support of an Appeal as set forth under 37 C.F.R. 1.17(c). However, at any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account 08-2025 under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21. Appellant respectfully requests reversal of the Examiner's rejection of pending claims 1-19 and 21-44.

10/07/2004 JBALINAN 00000154 082025 10057619

01 FC:1402 340.00 DA

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

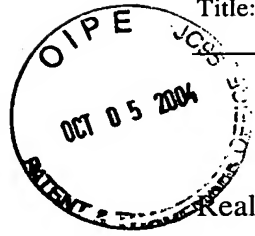
Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION



**TABLE OF CONTENTS**

Real Party in Interest.....	3
Related Appeals and Interferences.....	3
Status of the Claims .....	3
Status of the Amendments .....	4
Summary of the Invention .....	4
Issues Presented for Review .....	6
Grouping of the Claims.....	6
Argument .....	6
Conclusion .....	11
Appendix A.....	i

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

**REAL PARTY IN INTEREST**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

**RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellant which will have a bearing on the Board's decision in the present Appeal.

**STATUS OF THE CLAIMS**

Claims 1-19 and 21-44 are pending in the application (see Appendix A), and are the subject of the present Appeal.

Claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719.

Claims 7 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719, as applied to claims 2 and 30, and further in view of Logan U.S. Patent No. 4,910,871.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719, as applied to claim 12, and further in view of Asakawa U.S. Patent No. 4,940,998.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719, as applied to claim 19, and further in view of Chapin et al. U.S. Patent No. 5,838,343.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

**STATUS OF THE AMENDMENTS**

No amendments to the claims have been entered subsequent to the Final Office Action mailed April 7, 2004. The claims listed in Appendix A reflect the claims as of April 7, 2004.

**SUMMARY OF THE INVENTION**

In one embodiment, as claimed in independent claim 1, the present invention provides a printing system for depositing marking fluid on print media. The printing system includes a first marking engine for depositing a first marking fluid only on a first portion of a first side of the print media, and a second marking engine for depositing a second marking fluid only on a second portion of the first side of the print media different than the first portion. The first marking engine is excluded from depositing the first marking fluid on the second portion of the print media and the second marking engine is excluded from depositing the second marking fluid on the first portion of the print media. The first marking engine and the second marking engine are adapted to move back and forth across the print media along a first direction while depositing the respective first and second marking fluid on the respective first and second portion of the print media along the first direction.

In another embodiment, as claimed in independent claim 19, the present invention provides an inkjet printing system for depositing ink on print media. The printing system includes a first mechanism for moving a first printhead assembly relative to the print media so that the first printhead assembly can deposit ink only on a first unprinted portion of a first side of the print media along a first direction while the first printhead assembly moves back and forth across the print media along the first direction, and a second mechanism, separate from the first mechanism, for moving a second printhead assembly, separate from the first printhead assembly, relative to the print media so that the second printhead assembly can deposit ink only on a second unprinted portion of the first side of the print media along the first direction while the second printhead assembly moves back and forth across the print media along the first direction.

In another embodiment, as claimed in independent claim 30, the present invention provides a method for performing a printing operation for depositing ink on print media. The

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

method includes providing a first movable printhead assembly for depositing ink on the print media, and providing a second movable printhead assembly for depositing ink on the print media. In addition, the method includes, before depositing any ink on the print media with either of the first and second printhead assemblies, positioning of the print media for printing on a first portion of a first side thereof with the first printhead assembly and for printing on a second portion of the first side thereof different than the first portion with the second printhead assembly, and after the positioning of the print media, moving the first and second printhead assemblies back and forth across the print media along a first direction while the first printhead assembly deposits ink only on the first portion of the print media along the first direction and the second printhead assembly deposits ink only on the second portion of the print media along the first direction.

In another embodiment, as claimed in independent claim 44, the present invention provides a system for printing on print media. The system includes means for moving across the print media along a first direction and depositing a first marking fluid only on a first portion of a first side of the print media along the first direction, means for moving across the print media along the first direction and depositing a second marking fluid only on a second portion of the first side of the print media different than the first portion along the first direction, and means for moving the print media in a second direction substantially perpendicular to the first direction. Before either of the means for moving across the print media and depositing the first marking fluid deposits any of the first marking fluid and the means for moving across the print media and depositing the second marking fluid deposits any of the second marking fluid, the means for moving the print media positions the first portion of the print media for printing thereon by the means for moving across the print media and depositing the first marking fluid and positions the second portion of the print media for printing thereon by the means for moving across the print media and depositing the second marking fluid.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

**ISSUES PRESENTED FOR REVIEW**

I. Whether the rejection of claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 under 35 U.S.C. 103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719, in the Final Office Action mailed April 7, 2004, sets forth a *prima facie* case of obviousness.

**GROUPING OF THE CLAIMS FOR THE PURPOSES OF THIS APPEAL**

- I. Claims 1-18 and 35-37 shall stand or fall with the patentability of claim 1.
- II. Claims 19, 21-29, and 38-40 shall stand or fall with the patentability of claim 19.
- III. Claims 30-34 and 41-43 shall stand or fall with the patentability of claim 30.
- IV. Claim 44 shall stand by itself.

**ARGUMENT**

**Rejections Under 35 U.S.C. §103**

**A. Applicable Law**

Under 35 U.S.C. §103, the Examiner has the burden to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Three criteria must be satisfied to establish a *prima facie* case of obviousness. First, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would teach, suggest, or motivate one to modify a reference or to combine the teachings of multiple references. *Id.* Second, the prior art can be modified or combined only so long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Third, the prior art reference or combined prior art references must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). These three criteria are also set forth in M.P.E.P §706.02(j). Even when obviousness is based on a single reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In performing the obviousness inquiry under 35 U.S.C. §103, the Examiner must avoid hindsight. *In re Bond*, 910 F.2d 831, 834, 15

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990).

**B. Rejection of claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 under 35 U.S.C. §103(a) and claims 7, 15-17, 29, and 34 under 35 U.S.C. §103(a)**

Because the rejection of claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 under 35 U.S.C. §103(a) as being unpatentable over Yashima et al. U.S. Patent No. 6,164,747 in view of Granzow U.S. Patent No. 5,677,719, in the Final Office Action mailed April 7, 2004, fails to establish a *prima facie* case of obviousness, the rejection of claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 is not correct and should be withdrawn, and the rejection of claims 7, 15-17, 29, and 34 is not correct and should be withdrawn.

The printing system of independent claim 1 recites that "the first marking engine is excluded from depositing the first marking fluid on the second portion of the print media and the second marking engine is excluded from depositing the second marking fluid on the first portion of the print media", and the inkjet printing system of independent claim 19 includes a first mechanism for moving a first printhead assembly relative to the print media so that the first printhead assembly "can deposit ink only on a first unprinted portion of a first side of the print media" and includes a second mechanism for moving a second printhead assembly relative to the print media so that the second printhead assembly "can deposit ink only on a second unprinted portion of the first side of the print media".

The method for performing a printing operation of independent claim 30 includes "positioning of the print media for printing on a first portion of a first side thereof with the first printhead assembly and for printing on a second portion of the first side thereof different than the first portion with the second printhead assembly" "before depositing any ink on the print media with either of the first and second printhead assemblies", and the system for printing of independent claim 44 includes means for moving across the print media and depositing a first marking fluid "only on a first portion of a first side of the print media", means for moving across the print media and depositing a second marking fluid "only on a second portion of the first side of the print media", and means for moving the print media, wherein "before either of the means for moving across the print media and depositing the first marking fluid deposits any of the first marking fluid and the means for moving across the



**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

print media and depositing the second marking fluid deposits any of the second marking fluid, the means for moving the print media positions the first portion of the print media for printing thereon by the means for moving across the print media and depositing the first marking fluid and positions the second portion of the print media for printing thereon by the means for moving across the print media and depositing the second marking fluid".

Regarding claims 1 and 19, the Examiner contends that the Yashima et al. patent discloses a printing system for depositing marking fluid on print media, comprising a first marking engine/printhead assembly (31A) for depositing a first marking fluid on a first portion of a first side of the print media, and a second marking engine/printhead assembly (31B) for depositing a second marking fluid on a second portion of a first side of the print media different from the first portion, wherein the first marking engine (31A) and the second marking engine (31B) are adapted to move back and forth across the print media along a first direction while depositing the respective first and second marking fluid on the respective first and second portions of the media along the first direction (Final Office Action mailed April 7, 2004, at sect. 1, pp. 2-3).

Regarding claim 30, the Examiner contends that the Yashima et al. patent discloses a method for performing a printing operation for depositing ink on print media, comprising providing a first movable printhead assembly (31A) for depositing ink, providing a second movable printhead assembly (31B) for depositing ink, and moving the first and second printhead assemblies back and forth across the print media along the first direction while the first printhead assembly deposits ink on a first portion of a first side of the print media and the second printhead assembly deposits ink on a second portion of the first side of the print media different from the first portion along the first direction (Final Office Action mailed April 7, 2004, at sect. 1, pp. 4-5).

Regarding claim 44, the Examiner contends that the Yashima et al. patent discloses a system for printing on print media, comprising means for moving (31A) across the print media along a first direction and depositing a first marking fluid on a first portion of a first side of the print media along the first direction, means for moving (31B) across the print media along the first direction and depositing a first marking fluid on a first portion of a first side of the print media along the first direction, and means for moving the print media in a

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

second direction substantially perpendicular to the first direction (Final Office Action mailed April 7, 2004, at sect. 1, p. 6).

The Examiner correctly recognizes, however, that the Yashima et al. patent fails to disclose, regarding claim 1, that the first marking engine is excluded from marking on the second portion and that the second marking engine is excluded from marking on the first portion, fails to disclose, regarding claim 19, that the first printhead assembly deposits ink only on the first unprinted portion and that the second printhead assembly deposits ink only on the second unprinted portion, and fails to disclose, regarding claims 30 and 44, initially positioning the print media so that the first printhead assembly/means for moving deposits ink only on the first portion and the second printhead assembly/means for moving deposits ink only on the second portion (Final Office Action mailed April 7, 2004, at sect. 1, p. 7).

The Examiner contends that the Granzow patent discloses positioning an unprinted print receiving surface so that a first movable printhead assembly and a second movable printhead assembly deposit ink only on a first and second portion respectively without depositing ink on other portions (Final Office Action mailed April 7, 2004, at sect. 1, p. 7). As such, the Examiner suggests that it would have been obvious to one having ordinary skill in the art at the time the invention was made to position an unprinted medium in the system and method of Yashima et al. so that the first movable printhead assembly and the second movable printhead assembly deposit ink only on the first and second portions respectively without depositing ink on other portions as suggested by Granzow (Final Office Action mailed April 7, 2004, at sect. 1, p. 7).

Appellant submits, however, that modifying the Yashima et al. patent in view of the Granzow patent, in the manner suggested by the Examiner, would render the Yashima et al. patent unsatisfactory for its intended purpose. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). *See also* MPEP § 2143.01.

For example, the Yashima et al. patent discloses that first recording means (i.e., recording head 31A), which has two or more types of recording agents of different densities but of the same color, and second recording means (i.e., recording head 31B), which is

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

situated at a position different from a position at which the first recording means is situated and has two or more types of recording agents of different densities but of the same color, print "a combination of the recording agents used to record a pixel of the grayscale image that is to be recorded on the recording medium, wherein one or more of the recording agents possessed by each of said first and second recording means is included in the combination" (col. 4, lines 40-65; col. 5, lines 12-37; see also col. 20, lines 32-52; Fig. 10). As such, the Yashima et al. patent further discloses that by printing a plurality of inks of different densities "in superposition on the same pixel", the number of tones capable of being expressed can be increased greatly (col. 7, lines 20-23). Accordingly, the Yashima et al. patent discloses that "two-pass recording by each of the recording heads 31A, 31B, which recording is a characterizing feature of the invention, is achieved" (col. 20, lines 50-52).

The Yashima et al. patent, therefore, discloses that each of the recording heads 31A, 31B prints within the same pixel. Thus, to print within the same pixel on a recording medium, the recording heads 31A, 31B of the Yashima et al. patent both must print within the same portion of the recording medium. As such, modifying the Yashima et al. patent in the manner suggested by the Examiner so that the first movable printhead assembly (i.e., recording head 31A) and the second movable printhead assembly (i.e., recording head 31B) deposit ink only on the first and second portions, respectively, without depositing ink on other portions, is contrary to the teaching of the Yashima et al. patent wherein each of the recording heads 31A, 31B prints within the same pixel and, therefore, the same portion of the recording medium.

Accordingly, modifying the Yashima et al. patent in the manner suggested by the Examiner would preclude the recording heads of the Yashima et al. patent from performing two-pass recording and printing a plurality of inks of different densities in superposition on the same pixel, thereby defeating a "characterizing feature" of the Yashima et al. patent and rendering the Yashima et al. patent unsatisfactory for its intended purpose. Because modifying the Yashima et al. patent by the Granzow patent, in the manner suggested by the Examiner, would render the Yashima et al. patent unsatisfactory for its intended purpose, Appellant submits that there is no suggestion or motivation to make the proposed modification.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

In view of the above, Appellant submits that the Examiner has not established a *prima facie* case of obviousness of independent claims 1, 19, 30, and 44, and that independent claims 1, 19, 30, and 44 are each patentably distinct from the Yashima et al. and Granzow patents. As dependent claims 2-18 and 35-37 further define patentably distinct claim 1, dependent claims 21-29 and 38-40 further define patentably distinct claim 19, and dependent claims 31-34 and 41-43 further define patentably distinct claim 30, Appellant submits that dependent claims 2-18 and 35-37, dependent claims 21-29 and 38-40, and dependent claims 31-34 and 41-43 are also patentably distinct from the Yashima et al. and Granzow patents. Appellant respectfully submits that the above rejection of claims 1-6, 8-14, 18, 19, 21-28, 30-33, and 35-44 under 35 U.S.C. §103(a) is not correct and should be withdrawn, and that the above rejections of claims 7 and 34, claims 15-17, and claim 29 under 35 U.S.C. §103(a) are not correct and should be withdrawn.

**CONCLUSION**

For the above reasons, Appellant respectfully submits that the art of record neither anticipates nor renders obvious the claimed invention. Thus, the claimed invention does patentably distinguish over the art of record. Appellant, therefore, respectfully submits that the above rejections of pending claims 1-19 and 21-44 be withdrawn and that these claims be allowed.

The U.S. Patent and Trademark Office is hereby authorized the Charge Deposit Account No. **08-2025** in the amount of **\$340.00** for Filing a Brief in Support of an Appeal as set forth under 37 C.F.R. 1.17(c). However, at any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account 08-2025 under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

Any inquiry regarding this Appeal Brief to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office should be directed to either Robert D. Wasson at Telephone No. (360) 212-2338, Facsimile No. (858) 655-5859 or Scott A. Lund at Telephone No. (612) 573-2006, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
Intellectual Property Administration  
P.O. Box 272400  
3404 E. Harmony Road, M/S 35  
Fort Collins, Colorado 80527-2400

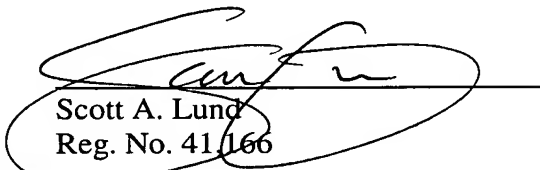
Respectfully submitted,

Ivan J. Baiges et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC  
Fifth Street Towers, Suite 2250  
100 South Fifth Street  
Minneapolis, MN 55402  
Telephone: (612) 573-2006  
Facsimile: (612) 573-2005

Date: Oct. 1, 2004  
SAL:jan

  
Scott A. Lund  
Reg. No. 41,166

**CERTIFICATE UNDER 37 C.F.R. 1.8:** The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 1<sup>st</sup> day of October, 2004.

By   
Name: Scott A. Lund

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

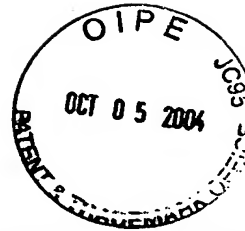
Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---



**APPENDIX A**

1. (Previously Presented) A printing system for depositing marking fluid on print media, the printing system comprising:

a first marking engine for depositing a first marking fluid only on a first portion of a first side of the print media; and

a second marking engine for depositing a second marking fluid only on a second portion of the first side of the print media different than the first portion,

wherein the first marking engine is excluded from depositing the first marking fluid on the second portion of the print media and the second marking engine is excluded from depositing the second marking fluid on the first portion of the print media,

wherein the first marking engine and the second marking engine are adapted to move back and forth across the print media along a first direction while depositing the respective first and second marking fluid on the respective first and second portion of the print media along the first direction.

2. (Original) The printing system of claim 1 wherein the printing system further includes:

a first mechanism coupled to the first marking engine for moving the first marking engine back and forth across the print media so that the first marking engine can deposit the first marking fluid only on the first portion of the print media; and

a second mechanism coupled to the second marking engine for moving the second marking engine back and forth across the print media so that the second marking engine can deposit the second marking fluid only on the second portion of the print media.

3. (Original) The printing system of claim 2 wherein the first mechanism is spaced from the second mechanism.

4. (Original) The printing system of claim 2 wherein the first and second mechanisms are identical.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

5. (Original) The printing system of claim 4 wherein each of the first and second mechanisms includes:
- a linear guide rod for guiding the respective first and second marking engine;
  - a drive motor; and
  - a drive element coupled between drive motor and the respective first and second marking engine, the drive motor through the drive element linearly moving the respective first and second marking engine along the linear guide rod back and forth across the print media.
6. (Original) The printing system of claim 2 wherein the print media has a width dimension and a length dimension which is greater than the width dimension, and wherein the first and second mechanisms move the first and second marking engines, respectively, back and forth across the width dimension of the print media.
7. (Original) The printing system of claim 2 wherein the print media has a width dimension and a length dimension which is greater than the width dimension, and wherein the first and second mechanisms move the first and second marking engines, respectively, back and forth across the length dimension of the print media.
8. (Original) The printing system of claim 2 wherein the first and second mechanisms operate in unison to move the first and second marking engines back and forth across the print media.
9. (Original) The printing system of claim 2 wherein the first and second mechanisms operate independently of one another to move the first and second marking engines back and forth across the print media.
10. (Original) The printing system of claim 1 wherein the first and second marking fluids are the same.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

11. (Original) The printing system of claim 1 wherein the first and second marking fluids are different.

12. (Original) The printing system of claim 1 wherein the first and second marking engines are identical.

13. (Original) The printing system of claim 12 wherein each of the first and second marking engines includes a printhead for printing a single color marking fluid.

14. (Original) The printing system of claim 12 wherein each of the first and second marking engines includes a printhead for printing multiple colors of marking fluid.

15. (Original) The printing system of claim 12 wherein each of the first and second marking engines includes a first printhead and at least a second printhead.

16. (Original) The printing system of claim 15 wherein the first printhead prints a single color of marking fluid and the at least a second printhead prints at least a single color of marking fluid that is different than the single color of marking fluid of the first printhead.

17. (Original) The printing system of claim 16 wherein the at least a single color of marking fluid is multiple colors of marking fluid.

18. (Original) The printing system of claim 1 wherein the printing system is a thermal inkjet printing system.

19. (Previously Presented) An inkjet printing system for depositing ink on print media, the printing system comprising:

a first mechanism for moving a first printhead assembly relative to the print media so that the first printhead assembly can deposit ink only on a first unprinted portion of a first



**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

side of the print media along a first direction while the first printhead assembly moves back and forth across the print media along the first direction; and

a second mechanism, separate from the first mechanism, for moving a second printhead assembly, separate from the first printhead assembly, relative to the print media so that the second printhead assembly can deposit ink only on a second unprinted portion of the first side of the print media along the first direction while the second printhead assembly moves back and forth across the print media along the first direction.

20. (Cancelled)

21. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate in unison to move the first and second printhead assemblies relative to the print media at the same speed.

22. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate in unison to move the first and second printhead assemblies relative to the print media at the same time.

23. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate in unison to move the first and second printhead assemblies relative to the print media in the same direction.

24. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate in unison to move the first and second printhead assemblies relative to the print media at the same speed, at the same time and in the same direction.

25. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate independently of one another to move the first and second printhead assemblies relative to the print media at different speeds.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

26. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate independently of one another to move the first and second printhead assemblies relative to the print media at different times.
27. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate independently of one another to move the first and second printhead assemblies relative to the print media in different directions.
28. (Original) The inkjet printing system of claim 19 wherein the first and second mechanisms operate independently of one another to move the first and second printhead assemblies relative to the print media at different speeds, at different times and in different directions.
29. (Previously Presented) The inkjet printing system of claim 19 and further including:  
a third mechanism, separate from the first and second mechanisms, for moving a third printhead assembly, separate from the first and second printhead assemblies, relative to the print media so that the third printhead assembly can deposit ink only on a third portion of the first side of the print media different than the first and second portions of the print media along the first direction while the third printhead assembly moves back and forth across the print media along the first direction.
30. (Previously Presented) A method for performing a printing operation for depositing ink on print media, the method comprising:  
providing a first movable printhead assembly for depositing ink on the print media;  
providing a second movable printhead assembly for depositing ink on the print media;  
before depositing any ink on the print media with either of the first and second printhead assemblies, positioning of the print media for printing on a first portion of a first side thereof with the first printhead assembly and for printing on a second portion of the first side thereof different than the first portion with the second printhead assembly; and

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

after the positioning of the print media, moving the first and second printhead assemblies back and forth across the print media along a first direction while the first printhead assembly deposits ink only on the first portion of the print media along the first direction and the second printhead assembly deposits ink only on the second portion of the print media along the first direction.

31. (Previously Presented) The method of claim 30 wherein moving the first and second printhead assemblies includes:

moving the first and second printhead assemblies in unison back and forth across the print media.

32. (Previously Presented) The method of claim 30 wherein moving the first and second printhead assemblies includes:

moving the first and second printhead assemblies independently of one another back and forth across the print media.

33. (Previously Presented) The method of claim 30 wherein the print media has a width dimension and a length dimension which is greater than the width dimension, and wherein moving the first and second printhead assemblies includes:

moving the first and second printhead assemblies back and forth across the width dimension of the print media.

34. (Previously Presented) The method of claim 30 wherein the print media has a width dimension and a length dimension which is greater than the width dimension, and wherein moving the first and second printhead assemblies includes:

moving the first and second printhead assemblies back and forth across the length dimension of the print media.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

35. (Previously Presented) The printing system of claim 1 wherein the second marking engine is spaced from the first marking engine in a second direction substantially perpendicular to the first direction.

36. (Previously Presented) The printing system of claim 35 wherein the first marking engine is adapted to deposit the first marking fluid to a first side of a dividing line between the first portion and the second portion of the print media, and the second marking engine is adapted to deposit the second marking fluid to a second side of the dividing line, and wherein the dividing line is substantially parallel to the first direction.

37. (Previously Presented) The printing system of claim 1 wherein the first marking engine is adapted to move back and forth across the print media along a first axis, and the second marking engine is adapted to move back and forth across the print media along a second axis spaced from the first axis.

38. (Previously Presented) The inkjet printing system of claim 19 wherein the second mechanism is spaced from the first mechanism in a second direction substantially perpendicular to the first direction.

39. (Previously Presented) The inkjet printing system of claim 38 wherein the first mechanism moves the first printhead assembly so that the first printhead assembly can deposit ink only to a first side of a dividing line between the first portion and the second portion of the print media, and the second mechanism moves the second printhead assembly so that the second printhead assembly can deposit ink only to a second side of the dividing line, and wherein the dividing line is substantially parallel to the first direction.

40. (Previously Presented) The inkjet printing system of claim 19 wherein the first mechanism moves the first printhead assembly back and forth across the print media along a first axis, and the second mechanism moves the second printhead assembly back and forth across the print media along a second axis spaced from the first axis.

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF PERFORMING A PRINTING OPERATION

---

41. (Previously Presented) The method of claim 30 wherein providing the first and second printhead assemblies includes:

spacing the second printhead assembly from the first printhead assembly in a second direction substantially perpendicular to the first direction.

42. (Previously Presented) The method of claim 41 wherein moving the first and second printhead assemblies includes:

moving the first and second printhead assemblies back and forth across the print media while the first printhead assembly deposits ink only to a first side of a dividing line between the first portion and the second portion of the print media and the second printhead assembly deposits ink only to a second side of the dividing line, and

wherein the dividing line is substantially parallel to the first direction.

43. (Previously Presented) The method of claim 30 wherein moving the first and second printhead assemblies includes:

moving the first printhead assembly back and forth across the print media along a first axis, and moving the second printhead assembly back and forth across the print media along a second axis spaced from the first axis.

44. (Previously Presented) A system for printing on print media, the system comprising:  
means for moving across the print media along a first direction and depositing a first marking fluid only on a first portion of a first side of the print media along the first direction;

means for moving across the print media along the first direction and depositing a second marking fluid only on a second portion of the first side of the print media different than the first portion along the first direction; and

means for moving the print media in a second direction substantially perpendicular to the first direction,

wherein before either of the means for moving across the print media and depositing the first marking fluid deposits any of the first marking fluid and the means for moving across

**Appeal Brief to the Board of Patent Appeals and Interferences  
of the United States Patent and Trademark Office**

Applicant: Ivan J. Baiges

Serial No.: 10/057,619

Filed: January 24, 2002

Docket No.: 10017070-1

Title: INKJET PRINTING SYSTEM EMPLOYING MULTIPLE INKJET PRINTHEADS AND METHOD OF  
PERFORMING A PRINTING OPERATION

---

the print media and depositing the second marking fluid deposits any of the second marking fluid, the means for moving the print media positions the first portion of the print media for printing thereon by the means for moving across the print media and depositing the first marking fluid and positions the second portion of the print media for printing thereon by the means for moving across the print media and depositing the second marking fluid.